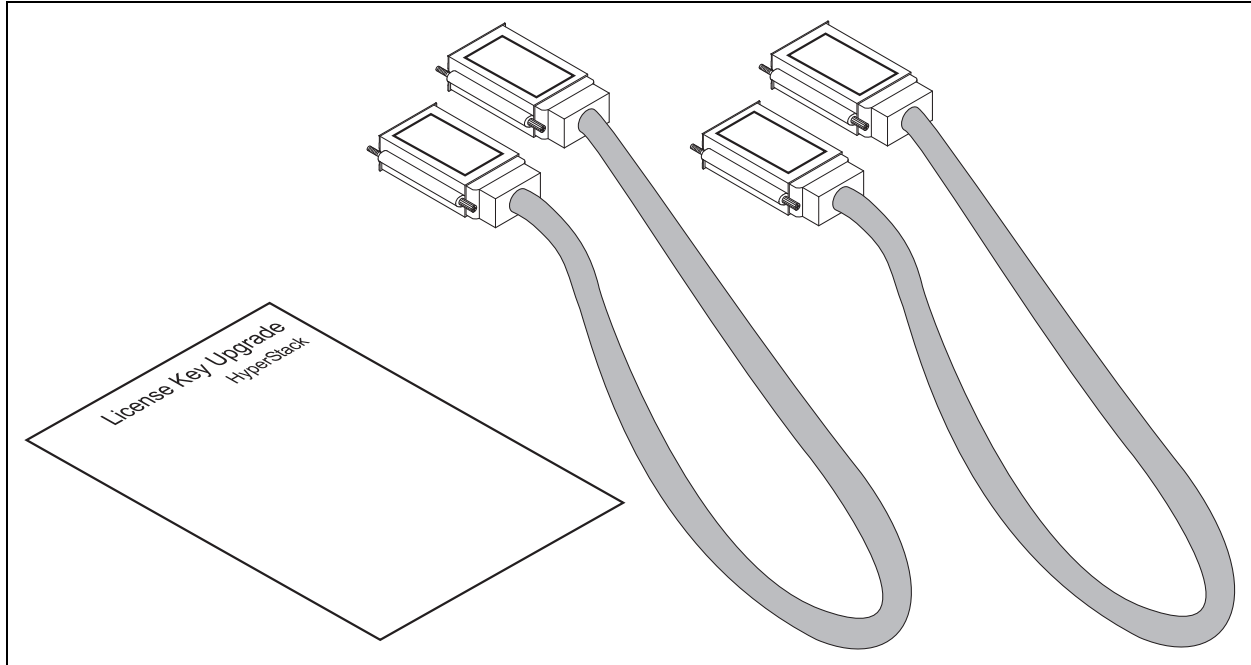


# Installation Guide

## HyperStack Cable

### 9000 Series Stackable Chassis Switch



1. HyperStack Cables, 25 inch (2)

2. License Key Upgrade, HyperStack (1)

HyperStacking connects two QLogic 9200 model switches through the Inter-Chassis Connection (ICC) ports on the two pairs of CPU blades. Two HyperStack™ kits are required to successfully connect two switches. Each HyperStack kit contains one HyperStack license key and two cables. HyperStacking is not disruptive and can be done with both switches operational or both switches powered off.

## Tools Required

- Crosshead screwdriver, medium
- Tie wraps (6)

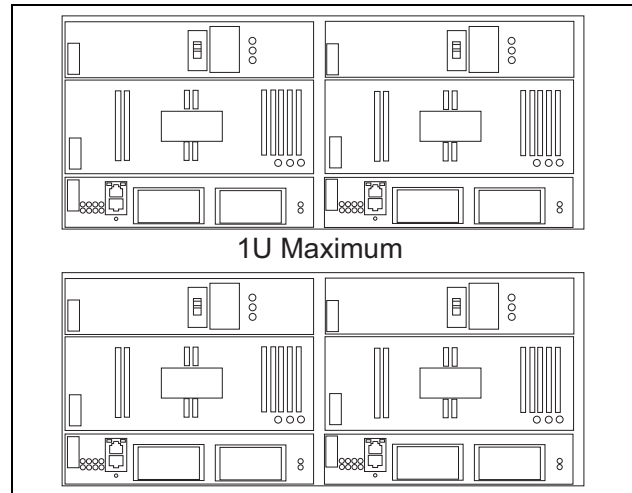


## Mount the Switches

Mount the switches in a rack, one on top of the other with no more than 1U of space between them. A cable loom can be installed in this space.

Horizontal clearance from the CPU blades to the rack opening or door should be 7–8 inches to allow for HyperStack cabling.

Refer to the *QLogic 9000 Series Stackable Chassis Switch Rack Mounting Guide* for detailed mounting instructions.



## Verify Domain IDs

Verify that the two switches have different domain IDs. If they do not, change the domain ID of one of the switches using the Set Config Switch command.

```
Switch #> show domains

Principal switch is (local): 10:00:00:c0:dd:07:4a:e8
Domain ID List:
  Domain 1 (0x1 ) WWN = 10:00:00:c0:dd:07:4a:e8
```

## Verify Firmware Version 7.8

Enter the Show Version command to verify that the two switches have firmware version 7.8 or later.

```
Switch #>show version

SystemDescription      QLogic 9000 Series
HostName                <undefined>
EthIPv4NetworkAddress  10.20.11.192
EthIPv6NetworkAddress  ::
MACAddress              00:c0:dd:00:71:ee
WorldWideName          10:00:00:c0:dd:00:71:ed
ChassisSerialNumber    FAM033100024
SymbolicName           Switch
ActiveSWVersion        V7.8.x.x.xx.xx
ActiveTimestamp         day month date time year
POSTStatus             Passed
PrimaryCPU              CPU0
SecondaryCPUStatus     HotStandby
```

Install version 7.8 firmware, if necessary. Enter the Image command to download and unpack the firmware. Enter the Hotreset command to perform a non-disruptive activation.

```
Switch #> admin start
Switch (admin) #> image fetch account_name ip_address
filename

Switch (admin) $> image unpack filename
Wait for the unpack to complete.
Image unpack command result: Passed

Switch (admin) $> hotreset
```

## Install HyperStack Licenses

Follow the directions on the *License Key Upgrade* document for each switch. Apply the respective license keys to each switch using the Feature Add command.

```
Switch #> admin start
Switch (admin) #> feature add #-XXXXXXXXXXXXX
License upgrade for HyperStack(tm) capability.
This feature upgrade does NOT require a switch reset.
Do you want to continue with license upgrade
procedure? (y/n): [n] y

Log Msg: [day mon date hh:mm:ss.sss CST
year][C][8400.006B][Switch][Upgrading License for
HyperStack(tm) capability]

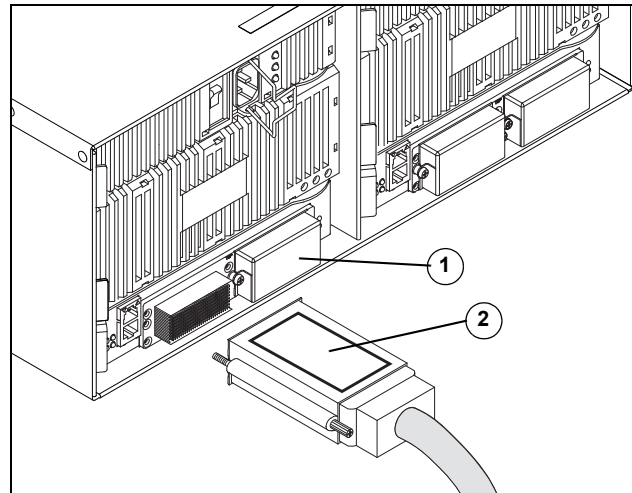
Log Msg: [day mon date hh:mm:ss.sss CST
year][C][8400.0047][Switch][New licenses are being
installed]
```

## Connect the HyperStack Cables

Use a screwdriver to remove the covers from all ICC ports.

Connect a HyperStack cable to one of the ICC ports with the label side up as shown.

Secure the cable connector with the captive screws.



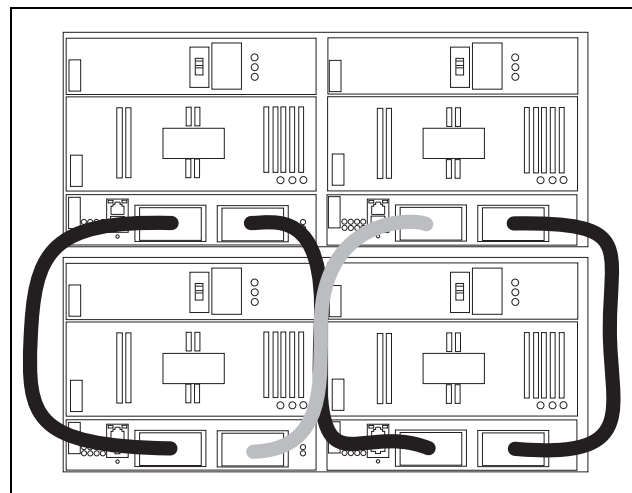
1. ICC Port Cover      2. Label facing up

## Complete the HyperStack Cable Connections

Connect the remaining HyperStack cable connectors as shown in the illustration. These copper cables are very flexible and can be bent as needed without damage.

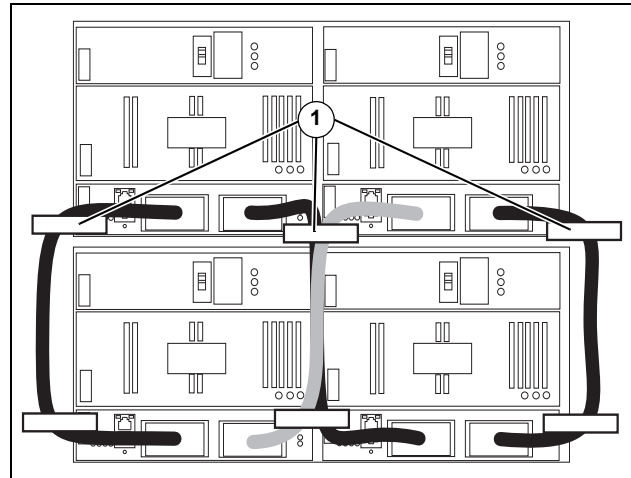
**NOTE:**

This is the only cabling configuration that is supported. Any other configuration will result in an error.



## Secure the HyperStack Cables

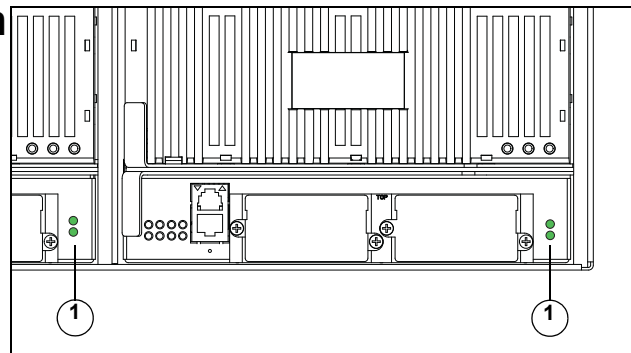
Secure the cables in place using ties wraps as shown. Secure the outer cables to the rack posts; secure the inner cables to each other. This reduces cable clearance to 7–8 inches and provides room for the removal of the Power Supply and Fan blades on the lower switch.



1. Tie Wraps

## Confirm HyperStack Operation

Confirm that the ICC port Logged-In LEDs on all CPU blades are illuminated. This indicates that the switches are communicating.



1. Logged-In LEDs

Enter the Show Interconnect command to confirm each ICC port is online.

```
Switch #> show interconnect
```

Blade ID	ICC ID	State	LSDB ID	ISOREASON
CPU0	ICC0	Online	0x1000	NotApplicable
	ICC1	Online	0x1001	NotApplicable
CPU1	ICC0	Online	0x1010	NotApplicable
	ICC1	Online	0x1011	NotApplicable

Enter the Show Fabric command to confirm that both QLogic 9000 Series switches are in the fabric.

```
Switch #> show fabric
```

Domain	WWN	Enet IP Addr	FC IP Addr	SymbolicName
*1	(0x01) 10:00:00:c0:dd:07:4a:e8	10.20.83.203	0.0.0.0	QLogic 9000
2	(0x02) 10:00:00:c0:dd:00:6a:2d	10.20.68.12	0.0.0.0	QLogic 9000

\* indicates principal switch